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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/433,202	11/04/1999	HARIKLIA DRIS REITZ	N19.12-0026	2243

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EXAMINER
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MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/433,202	<b>Applicant(s)</b> REITZ ET AL.	
	<b>Examiner</b> Michael A. Marcheschi	<b>Art Unit</b> 1755	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 39-58 is/are pending in the application.  
     4a) Of the above claim(s) 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-48 and 50-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Newly submitted claim 49 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The elected invention is a collection of particles and method of polishing using the collection of particles. The structure (coated device) was initially restricted out and non elected.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 49 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 39, and 44-45 are objected to because of the following informalities:

In these claims, “alumina titanate” and “alumina silicate” should be aluminum titanate” and “aluminum silicate”, respectively. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 39-43, 46-48, 50-54 and 56-58 are rejected under 35 U.S.C. 102(e) as being anticipated by or in the alternative under 35 U.S.C. 103(a) as obvious over Hampden-Smith et al.

Hampden-Smith et al. teaches in sections 0213, 0217, 0221-0224, 0239-0243 and claims 1, 4, 7, and 12, particles for polishing (i.e. collection of particles) comprising an abrasive of ceria, zirconia, titania, alumina, silica or a mixture thereof in a dispersion form. The dispersion comprises 1-20 wt. % particles, water, a surfactant and other organic materials (the use of organic reads on instant claim 54). The particles are either (1) single crystals (size of at least 20 nm) or (2) agglomerates of numerous crystals (size of 0.1-.75 microns (100-750 nm)). The sizes are substantially uniform and meet the criteria defined in section 0221 of the reference. The reference also states that complex oxide of the abrasives can be used.

The claimed invention is anticipated by the reference because the reference teaches a collection of particles comprising the claimed materials. With respect to the distribution defined in the claims, section 0221 of the reference discloses a distribution that broadly reads on the claimed distribution. The reference literally discloses size values that are consistent with the instant claims. In the alternative, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976).

Claims 44-45 are rejected under 35 U.S.C. 103(a) as obvious over Hampden-Smith et al. alone, as applied to claim 39 above or further in view of Shyu or Chittofrati et al.

Shyu teaches in column 1, lines 20-24 that aluminum titanate is a known abrasive.

Art Unit: 1755

Chittofrati et al. teaches in column 5, lines 9-10 that aluminum silicate is a known abrasive.

With respect to the use of aluminum titanate and aluminum silicate, as the abrasive according to Hampden Smith et al., this reference teaches that the abrasive can be titania, alumina, silica or a mixture and that the abrasive can also be complex oxide of the abrasives. This broadly makes obvious the claimed material because they are complex oxide of alumina and titania (aluminum titanate) and alumina and silica (aluminum silicate). One skilled in the art from reading the reference would have appreciated that the claimed materials are envisioned by the reference teaching of the claimed oxides coupled with the teaching that complex oxides can be used. In the alternative, the use of any known abrasive material, as the abrasive material according to the primary reference, would have been well within the scope of the skilled artisan because the substitution of one known abrasive for another is clearly within the level of ordinary skill. Since the secondary references clearly teach that the claimed materials are known abrasives, the use thereof is obvious for the above reasons.

Claim 55 is rejected under 35 U.S.C. 103(a) as obvious over Hampden-Smith et al., as applied to claim 50 above and further in view of Farkas et al.

Farkas et al. teaches in abstract and column 6, lines 14-20 that in polishing compositions the solvent can be water, an alcohol or a mixture thereof.

Farkas et al. teaches that the use of an alcohol or alcohol/water medium is conventional in polishing compositions and is the examiners position that one skilled in the art would have

routinely known that either water, alcohol or an alcohol/water carrier can be used as the dispersing medium to form polishing compositions.

Claim 58 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6 and 25 of copending Application No. 09/841,255.

The copending claims suggest a collection of particles, wherein said particles can have a size distribution within the claimed range, thus meeting instant the size limitation of claim 58. With respect to the particle type, the claims defines the particles as a non silicon material and one skilled in the art would have appreciated and found the claimed abrasives obvious because Hampden-Smith et al. teaches that the claimed materials are conventional non silicon based materials for use in polishing.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 39, 40, 41, 45-48 and 50-57 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 26-31 of copending Application No. 09/841,255 in view Hampden-Smith et al., Sachan et al. and Farkas et al. alone or further in view of Chittofrati et al.

The copending claims suggest a collection of particles, wherein said particles can have a size distribution within the claimed range, thus meeting instant the size limitation of claims. With respect to the particle type, the claims defines the particles as a silicon compound and one skilled in the art would have appreciated and found the claimed abrasives obvious because

Art Unit: 1755

Hampden-Smith et al. broadly suggests that complex oxides of alumina and silica (see above) are conventional non silicon based materials for use in polishing. In the alternative, the use of any known abrasive material, as the abrasive material according to Hampden-Smith, would have been well within the scope of the skilled artisan because the substitution of one known abrasive for another is clearly within the level of ordinary skill. Since Chittofrati et al. clearly teach that the claimed materials (silicon compound) is a known abrasive, the use thereof is obvious for the above reasons.

With respect to claim 52, the addition of a surfactant would have been obvious because Sachan et al. teaches that these additive are conventionally added to polishing composition for various reasons and the use of any known polishing additive would have been well within the scope of the skilled artisan in order to vary the polishing characteristics, as well as, minimize agglomeration which could be detrimental to the performance of the polishing composition (i.e. larger sizes (agglomerates) will maximize scratching). The use of the claimed specific trimethyl ammonium bromide, as the surfactant is obvious because it is the examiners position that the use of the dodecyl form instead of the cetyl form is clearly within the scope of the skilled artisan.

With respect to claim 55, Farkas et al. teaches that the use of an alcohol or alcohol/water medium is conventional in polishing compositions and is the examiners position that one skilled in the art would have routinely known that an alcohol or an alcohol/water carrier can be used as the dispersing medium to form polishing compositions.

With respect to claims 56-57, the copending claims are silent with respect to the amount of particles in the dispersion, however, it is the examiners position that that one skilled in the art would have routinely known the amount of abrasive to be included in the polishing slurry to

Art Unit: 1755

produce the most optimum slurry, said amount being a conventional amount, as clearly shown by Farkas et al.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

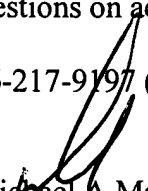
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael A Marcheschi  
Primary Examiner  
Art Unit 1755

MM  
7/06